(6.)

TWO CASES

OF

FATAL OBSTRUCTION OF THE INTESTINAL CANAL

BY

PERITONEAL BANDS.

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LATE HON. SEC. TO THE SOCIETY.

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Mechanical occlusion of some part of the intestinal canal, by intra-abdominal causes, has lately attracted great attention among English surgeons; chiefly with regard to the propriety of performing gastrotomy, in the hope of finding and relieving the stricture.

Before any just conclusions can be arrived at on this point, more extended experience seems necessary, especially to determine whether we can predict with certainty the seat or nature of the constriction, during life: and whether the constriction is generally of such a nature that it might be relieved by an operation. This experience is only to be gained by the careful record of cases; and the exact report of the post-mortem appearances in such as terminate fatally. With this view, the two following cases, which have lately occurred in St. Bartholomew's Hospital, are offered to the Society.

The first is extracted from the registry of cases occurring in the Hospital, where it is reported by Mr. H. S. Webb; and the post-mortem appearances by Dr. W. S. Kirkes.

Case I.—Mary G——, a tall, dark-complexioned woman, aged 20, was admitted into Faith ward, November 13th, 1848.

Present condition.—Face dusky; eyes sunken, with livid areolæ around them; skin warm and dry; pulse 120, small, and rather sharp; lips dry; gums rather vascular; slight sordes about the teeth; tongue moist, coated on dorsum with very thick brown fur; clean at the edges. Bowels have not been open for *seven* days. Urine is said to be scanty, high-coloured, and depositing a thick sediment. Catamenia regular.

Complains of slight vertigo, and of nausea when she lies on the back. The abdomen is distended; generally dull on percussion; intolerant of pressure, especially in the umbilical region.

History.—Is a single woman, in domestic service; has always had good health until rather more than a fortnight ago, when she got wet feet, which checked the catamenial discharge. The next day she became very sick, and vomited whatever food she took, complaining also of a very severe griping pain in the umbilical region. She suffered rigors, followed by great heat of the skin. She kept about the house for four days, although unable to attend to more than a part of her usual duties. Two days after the seizure she was seen by a chemist, who gave her some medicine, which was vomited. She was seen frequently by this chemist, but always vomited the medicine, as well as any food she took. Ten days ago she left her place, and saw a medical man, who gave her medicine which relieved her symptoms, and she got better, until a week ago, when she went out walking. On her return she went to bed, and during the night the pain in the abdomen and vomiting came on again, and with greater severity than before. She was bled, and has had leeches and fomentations applied to the abdomen during the past week, with the effect of relieving the pain. She has taken frequently aperient medicines, and enemata have been administered seven

or eight times, without the desired effect.

Ordered.—Venesection to 12 oz. A dozen of leeches to the abdomen, to be followed by a poultice; a soap injection *per rectum;* to take calomel powder, ten grains, directly; and effervescing draughts, with one drachm of sulphate of magnesia, every sixth hour.

14th.—The bleeding was well borne; the blood not buffed; the pain seemed much relieved by the leeches; the powder was retained on the stomach; two soap clysters brought away no fæcal matter. She passed a very restless, sleepless night; has vomited frequently a fluid of light yellow colour, and stercoraceous character; the expression is very anxious; features more sunken. Pulse 120, softer than yesterday. Abdomen very tense, and intolerant of pressure. Does not complain of actual pain, but of general discomfort.

Ordered.—Continue draughts; take of calomel three grains every sixth hour; repeat enemata; fomentations to abdomen.

15th.—Symptoms continue the same; all nourishment given by the mouth is quickly returned; stercoraceous vomiting is unabated; complains of a sensation "as if something alive were moving" in her abdomen. The abdomen appears more distended, and particularly prominent to the left of the umbilicus; generally dull on percussion.

Ordered.—Continue draughts, with ten drops of laudanum added to each; continue pills. Brandy, two oz. Beef-tea, two pints, for two injections.

16th.—The first beef-tea enema was quickly returned, and followed in four hours by about a pint of dark bilious-looking fluid, containing abundant sediment of fæcal odour and appearance: the second enema was returned unchanged. The vomiting and extreme restlessness continue. Tongue begins to dry. Pulse frequent, small, and jerking. Abdomen slightly resonant on percussion laterally; firm pressure on the abdomen causes nausea, but no pain. Takes arrow-root and brandy willingly.

Ordered.—Continue medicines.

17th.—She remains in the same condition; complaining more of abdominal pain. Continue medicines.

18th.—She is delirious and very restless; face very dusky and flushed: pupils contracted; skin hot and dry; pulse 124, small, and very feeble; vomiting of feculent matter continues; the enemata have brought away nothing; the abdomen is more tense, and intolerant of pressure.

She continued in this state until the evening, when she sank rapidly, and died at 7 P.M.

Post-mortem appearances 65 hours after death.—Limbs still slightly rigid; abdominal parietes discoloured from decomposition.

Brain not examined.

Lungs, with the exception of some emphysema, healthy. About half an ounce of clear fluid in the pericardium. Heart rather large; left ventricle contracted; not examined internally.

Peritoneum generally rather vascular; about four ounces of slightly turbid fluid containing flakes of lymph in the sac; some deposits of puriform matter at the bottom of the pelvis. Small intestine greatly distended; the peritoneal coat vascular and thickened; a broad line of redness ran along the border of the intestine where the coils lay in contact with each other; a few slight shreds of lymph, here and there, held the coils slightly together at their surfaces of contact. Large intestine pale, contracted, and nearly empty. The transverse portion of the colon drawn down with the *right iliac region*, by a short narrow band proceeding from its lower border, and attached to the spine by means of the portion of mesentery corresponding to the last part of the small intestine. This band passed in front of the small intestine about an inch before its termination in the cæcum, compressing it against the spine, and constricting it so as to render it impervious. The portion of the colon from which the band originated was closely and rather firmly adherent to the constricted part of the small intestine, the thinner and more friable bands passing from one intestine to the other. The mesentery immediately surrounding the constricted part was inflamed, thickened, and matted around the intestine.

The entire length of the small intestine, as far as the constriction, was filled with liquid bilious matter, such as had been vomited during life. The mucous membrane was reddened and swollen in the neighbourhood of most of Peyer's patches, the individual glandulæ of which had burst, leaving spaces surrounded by a thickened border of mucous membrane. Each Peyer's patch

thus presented a broad oval surface, the mucous membrane of which appeared worm-eaten, and as if irregularly removed by ulceration.

Here and there a swollen red solitary gland was seen. As the small intestine approached the seat of constriction, it became very vascular, and presented discoloured streaks and spots, as if from commencing sloughs. The piece of small intestine between the constriction and the cæcum was pale and contracted, and its mucous membrane irregularly ulcerated. Stomach distended with liquid bilious contents. Liver natural; gall-bladder distended with a quantity of thin dark bile; spleen natural; no morbid appearance of uterus or ovaries; kidneys large, heavy, and congested, but apparently of healthy structure.

Case II.—Hannah R——, æt. 23, was admitted into Lucas ward, in the morning of February 7th, 1850.

Present condition.—Face very dusky and flushed; eyes dull, sunken, and surrounded by dark livid areolæ; skin cold, moist, and clammy; pulse 140-50, very small and thready, at times barely perceptible; lips dry and fissured; tongue dry, coated with thick dirty white fur; bowels last open four days ago, but scantily; respiration natural, about 25.

She complains of pain from the most gentle pressure on any part of the abdomen, but especially in the hypogastric and iliac regions; the abdomen does not appear distended, and is generally soft, except about the umbilical region, where it is rather tense; there exists tympanitic resonance on percussion over the course of the colon, and in the epigastrium, but marked dulness in the umbilical and hypogastric regions. The patient is very restless; appears to lie indifferently on the back or either side, keeping the knees slightly drawn up. Complains of pain about the hypogastrium, and of constant nausea; vomits occasionally a light-coloured frothy fluid, having an appearance like working yeast, and of a decidedly feculent odour.

History.—She is a delicate married woman, a toy-painter by trade, which occupation she has pursued for years. Has been confined four times, and has two living children. The last labour occurred about five months ago, and was premature, at the seventh month of utero-gestation. Since that time she has never been perfectly well, suffering frequently from troublesome constipation, for which she has been under medical care; during the last three months particularly, the bowels have been generally costive, and she says the motions have been of unusually small calibre. The bowels were last open, after a constipation of three days' duration, on Sunday—*i. e.*, four days ago, and then but very imperfectly. On Monday she complained of great pain in the abdomen, and stercoraceous vomiting commenced, as was learnt by a communication from her medical attendant. Since that day she has taken various aperient medicines; but the constipation, stercoraceous vomiting, and abdominal pain, continue unabated. Several enemata have been administered, and returned unchanged. The patient says she passed urine last night: catamenia regular.

A catheter was passed into the bladder, and about two ounces of thick, high-coloured urine drawn off. An elastic tube was introduced for some eight or ten inches by the rectum, and copious enemata administered. It was determined in consultation that no operative proceeding was justifiable; and the patient was ordered wine, brandy, and beef-tea *ad libitum*, and to have large enemata.

Feb. 8th, 1 P.M.—She appears almost comatose, and fast dying; since 11 P.M. last night, she has taken four half-drachm doses of laudanum, to quiet the pain and restlessness, and has swallowed brandy and wine pretty freely; has vomited occasionally; abdomen more full, but soft; enemata came away unchanged: died at 4 P.M.

Post mortem appearances about 20 hours after death.

Thorax. — Heart and pericardium healthy; pleuræ free from adhesion. Left lung healthy; infiltrated posteriorly with some bloody serum, but crepitant throughout, and floating in water. Right lung had lost its natural contractility, and presented a good example of extreme emphysema throughout its whole substance.

Abdomen.—On exposing the peritoneal cavity an extremely fœtid odour was perceptible. The parietal layer of peritoneum was dotted with numerous small circular milk-white spots, more distinctly seen after exposure to the air; these spots were in the substance of the serous membrane, and not removeable except by carefully dissecting it from the subjacent cellular tissue.

The great omentum was gorged with dark blood, and looked, at its lower part, like a bag of large distended veins. On

raising it, it was found to be adherent to the subjacent intestines by recent lymph; on separating these adhesions carefully, there appeared an aperture in a mesenteric vessel of considerable size, freely giving exit to blood, of which about half a pint had escaped into the pelvis, probably during life. The contiguous surfaces of the intestines, both large and small, were also agglutinated together, and to the parietes of the abdomen, by recent lymph, which was easily broken down by the handle of a knife.

The greater part of the small intestine was of a deep red colour, very much distended in the upper part, and contracted below; about two feet of its length appeared more distended, and of a darker colour, than the rest of the intestine, almost black, or dark claret-coloured: in the middle of this dark part was an ash-coloured slough, about three inches long, with well defined margin: the extremities of this congested fold of intestine were tightly girt by a firm band passing from the surface of another portion of intestine of the mesentery at the point of constriction: this band was very strong, and firmly attached at both its extremities.

The contents of the strangulated portion of intestine gave to the finger the sensation of hardened fæcal matter, which was found to be caused, however, by the congestion and enlargement of the *valvulæ conniventes;* for, on opening the canal, it contained only about one pint of dark fluid blood: the mucous membrane presented even a darker aspect than the exterior, and the internal surface of the ash-coloured spot was scarcely to be distinguished from the adjacent membrane: the mucous membrane was easily stripped off in various points. A considerable quantity of blood was also contained in the intestine, for a short distance above and below the stricture. The seat of constriction corresponded nearly to the umbilicus; but the coil of included intestine reached to the right lumbar region. It was a part of the lower end of the jejunum. Stomach healthy; also the large intestine, which contained near the cæcal valve a few hardened scybala.

Pancreas and spleen of normal size and aspect.

Liver showed some portal venous congestion: otherwise healthy.

Kidneys rather large, but apparently normal.

These cases tend to confirm Rokitansky's opinion, that internal constrictions of the intestine are more frequent in females than in males; which, indeed, we should anticipate, on account of the great changes of position to which the abdominal viscera are subject in the former sex, in pregnancy, ovarian tumors, &c.

The same author has found abnormal peritoneal bands, or rents in the mesentery, to be the most frequent cause of internal incarceration. These bands are probably in most instances the result of some previous inflammation of the peritoneum; in many recorded cases we find a distinct history of mesenteric mischief; in the case related by Mr. Hilton, in Med. Chir. Transactions, vol. xxx., the patient, 20 years of age, was the subject of mesenteric disease in early childhood, and, some time subsequently, suffered from symptoms which indicated peritonitis; here, from the history, the nature of the obstruction was accurately diagnosed, and found after death to be a band of false membrane, including a knuckle of the ileum. Mr. Druitt also records an instance where a boy, eleven years old, died after the operation of gastrotomy for the relief of the intestinal stricture; and old adhesions were found in the peritoneal sac, one of which was the cause of the constriction: the boy was stated to have suffered for eight years with occasional severe attacks of pain in the abdomen, subsiding under the use of medicine.

In the two cases which I have related, there was no evidence of former peritoneal mischief; indeed, from patients of this class it is always difficult to get a clear account of their ailments: it is curious that in both instances it was carefully observed that the abnormal band forming the constriction was the only one discovered of any strength or consistence, which seems to disprove the inflammatory origin of the bands, and raise a suspicion of their being congenital. Rokitansky mentions the frequent congenital occurrence of unusual length of the duplicatures of the peritoneum, or of supernumerary folds and pouches of that membrane; these pouches are chiefly found, he says, in the hypogastric, and more especially in the iliac and inguinal regions, and about the fundus vesicæ; and communicate with the peritoneal cavity by a well-defined fissure or ring, which is frequently surrounded by a tendinous band, lying in the duplicature.